GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:3456
ANSWERED ON:06.08.2002
PREDICTIONS FOR RAINFALL
YEMPARALA VENKATESWARA RAO

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that rainfall is likely to be very scant this year; (

(b) if so, whether the meteorological department failed to predict this earlier; (

(c) if so, the reasons therefor; and

(d) the steps proposed to be taken for the accurate predictions?

Answer

THE MINISTER OF STATE IN THE DEPARTMENT OF SCIENCE AND TECHNOLOGY IN THE MINISTRY OF SCIENCE AND TECHNOLOGY(SHRI BACHI SINGH RAWAT)

(a) to (d) : A Statement is attached.

STATEMENT AS REFERRED IN REPLY TO PARTS (a) TO (d) OF LOK SABHA UNSTARRED QUESTION NO. 3456 DUE 6.8.2002 REGARDING `PREDICTIONS FOR RAINFALL`.

(a), (b) & (c) This year, southwest monsoon arrived over Kerala on 29th May, three days ahead of its normal date. Its further advance into the peninsula and north-eastern region was on time. By 27 June, monsoon advanced into Jharkhand, Bihar, Chhattisgarh, Maharashtra, Madhya Pradesh, Gujarat, Uttaranchal and parts of Himachal Pradesh, Jammu & Kashmir, East Uttar Pradesh and South Rajasthan. For the period 1to 27th June 2002, the cumulative rainfall for the country as a whole was 7% above normal. However, after that, the monsoon circulation weakened and its further advance into West Uttar Pradesh, Delhi, Punjab, Haryana and Rajasthan was halted. On 17 July, the cumulative rainfall for the country as a whole was 25% below normal and 14 met. Sub-divisions were normal and 22 were deficient/scanty.

Southwest monsoon further advanced as a weak current into remaining parts of West Uttar Pradesh, some more parts of Rajasthan, Haryana including Delhi and Punjab on 19th July. Thereafter there was no further progress.

However, in addition to good rainfall activity over northeastern region, there has been scattered rainfall in the peninsular India during the third and fourth week of July. The cumulative rainfall for the week ending on 31 July was 30% below normal with 10 out of 36 meteorological sub-divisions in excess to normal category and remaining 26 were deficient/scanty. Out of 523 Met. Districts, 32 were excess, 99 were normal and 382 were deficient/scanty. IMD`s official forecast for the 2002 South-west monsoon season rainfall was as follow:
i) In 2002, the rainfall for the South-west monsoon season (June to September) for thecountry as a whole is likely to normal, thus making the year 2002 the 14th normal monsoon year in succession. The normal is defined as rainfall with Â± 10% of its long period average.

ii) Quantitatively, the rainfall over the country as a whole for the 2002 South- west monsoon season (June to September) is likely to be 101% of its long period average with an estimated model error of Â± 4%.

As Long Range Forecast (LRF) is for the total seasonal rainfall, the correctness of the forecast can be assessed only after the monsoon season is over.

The normal monsoon rainfall cannot be interpreted on smaller spatial and time scales associated with onset of monsoon over the different parts of the country and dry/wet spells within the monsoon season. The future development of monsoon circulation during the remaining period of the monsoon season has to be watched and forecasts can be given only on the time scale of 2-4 days in advance.

As of 31 July the monsoon activity has been subdued over most parts of the country except over north-east India, Bihar and Orissa.

d) By using different concepts, a variety of empirical and dynamical models are being developed and tested for their accuracy. Continuous monitoring and updating of the operational long range forecast models is being done on regular basis.